

suggest applicant's invention.

THE 103 REJECTION:

Claims 1-16 were rejected under 35 U.S.C. § 103 as being unpatentable over the admitted prior art as disclosed in Fig. 2A of applicant's disclosure in view of Hill and further in view of EPO '845. Reconsideration and withdrawal of the § 103 rejection is respectfully requested in view of the following remarks.

Applicant's invention is directed to a method of forming a decorative image onto one side of a perforated one-way vision panel. The one-way vision panel is described as a perforated membrane which is light colored one side and dark colored on the opposite side. Light incident on the light colored side is reflected and scattered, which has the effect of obscuring vision through the panel when viewed in the direction from the light colored side to the dark colored side. On the other hand, light incident on the dark colored side is absorbed, which has the effect of providing a substantially clear view through the panel when viewing the panel from the dark colored side to the light colored side (i.e., the "through-viewing" direction).

As is described in applicant's patent disclosure with reference to Fig. 2A, it is known from the prior art to form a decorative image on the light colored side of the above-described one-way vision panel by using a conventional ink printing techniques, such as silk screen, litho, and similar ink printing techniques. The problem common to such ink printing techniques is the presence of excess ink in the side walls of the holes of the perforated material. This gives rise to a ghosted image, corona, or halo effect when viewing the panel in the through-viewing direction.

This problem is overcome by the applicant's claimed method which involves electrostatically

transferring an ink image from a transfer medium onto the solid bar portions only of a perforated one-way vision membrane. Neither the admitted prior art, the Hill reference nor EPO '845, taken alone or in combination, teach or suggest applicant's solution as recited in claims 1-16 for printing a decorative image on a perforated one-way vision display panel in a manner which inhibits excess ink from penetrating the sidewalls of the individual holes of the perforated membrane, thus avoiding the problem of undesirable ghosted image or visual halo effects in the through-viewing direction of the display panel.

The Office Action cites the Hill patent for its disclosure on "transfer printing" for making a one-way vision display panel. At the bottom of page 3, the Office Action states:

"It would have been obvious to a person having ordinary skill in the art to have performed the printing of the admitted prior art by transfer printing as taught by Hill, since Hill recognizes that transfer printing is effective for applying patterns for one-way vision panels, (col. 13, lines 27-36)".

First, it should be noted that the "transfer printing" as disclosed in Hill does not teach or suggest applicant's invention of electrostatically transferring a reverse image onto a perforated one-way vision membrane.

The passages on transfer printing in the Hill reference cited in the Office Action (col. 9, line 67 to col. 10, line 15 and col. 13, lines 27 -36) describe how to adhesively transfer a printed or pre-formed silhouette pattern and design onto a transparent substrate. The silhouette pattern and design are formed as a dot pattern of successive color layers.

The problem that Hill is directed to overcoming is how to print the successive color layers in a dot pattern with as exact registration as possible. Because of the inevitable lack of registration

in conventional printing, layers of the design ink will typically overlap each other, giving the effect of a "ghosted image" of the design which is visible in the through-viewing direction.

Lack of registration is due, in conventional printing processes, to one or more of the following causes:

- (a) Machine tolerance/error, in placing the ink, over the required area, onto the substrate.
- (b) Instability of the particular ink on the particular substrate until dried/cured, through flow of liquid, absorption into the substrate, drying shrinkage, etc.
- (c) Tolerance/error in the positioning of the substrate into the printing position.
- (d) Dimensional instability of the substrate, typically through temperature and humidity changes, in between successive application of ink.

To overcome this problem, Hill teaches an overlap printing method (see col. 10, lines 30-37; col. 18, lines 11-31 and Fig. 18) which requires each deposit of ink to be placed within the area or areas of the silhouette pattern. Hill teaches that the dots may be printed larger in certain colors than others to avoid seeing particular colors on the opposite side to that intended because of inexact registration (see col. 10, lines 33-37).

Alternatively, Hill teaches to form the dot pattern from multiple layers of cut film. The film may be "kiss die cut" such that the unwanted areas can be mechanically removed.

Both of the above described methods are costly and labor intensive.

Hill is not directed to a method for transferring a printed ink image onto only the solid bar portions of a perforated membrane without getting ink in the holes of the perforated membrane material.

Instead, Hill is directed to overprinting and cut film techniques to form a silhouette pattern of different colors superimposed with exact registration as possible and then applying the formed silhouette pattern by dry transfer to a transparent panel. At col. 9, line 67 to col. 10, line 15, Hill teaches to first form a silhouette pattern on a carrier paper, "the elements of the pattern normally being printed or "kiss die cut" and the pattern applied to a panel by dry transfer" (see col. 9 line 68 to col. 10, line 2). Hill teaches to adhesively bond one side of the printed or "kiss die cut" silhouette pattern on the carrier paper with a medium tack adhesive for subsequent transfer by "dry transfer" to a transparent substrate using a higher tack adhesive. The difference in tackiness in the two adhesives allows the carrier paper to be removed while leaving the silhouette pattern in place on the transparent substrate.

In the dry transfer process of Hill, neither the carrier paper nor the transparent transfer substrate is perforated. Instead, it is the silhouette pattern and design itself that is formed as a perforated membrane for subsequent transfer onto a non-perforated transfer substrate.

Hill actually teaches away from applicant's invention! With reference to applying a design on a perforated membrane, Hill states at col. 13, lines 43-46:

"... the required design may be produced after the holes have been formed, for example, by *spraying* using appropriate stencils or masking to control areas of application." *{emphasis added}*

As noted above, a design that is sprayed onto a perforated membrane results in overspray which seeps into the sidewalls of the individual holes of the perforated membrane material. This causes an undesirable ghosted image or halo effect. Hill does not recognize this as a problem nor does Hill teach or suggest how to overcome this problem.

The Office Action acknowledges that Hill does not disclose electrostatically transferring ink onto a transfer medium. The Office Action relies on EPO '845 for its general disclosure of a transfer imaging system in which electrographic toner on a paper transfer medium is transferred onto a substrate.

The Office Action argues that it would have been obvious to a person having ordinary skill in the art to have electrostatically transferred ink onto the transfer medium of the method of the admitted prior art and Hill, since EPO '845 recognizes that electrostatically transferring ink onto the transfer medium facilitates sign manufacturing.

First it should be noted that neither Hill nor EPO '845 identify the problem for which applicant's invention is directed to overcome.

As noted above, Hill teaches to apply an image to a perforated membrane by spraying, thus ignoring the fact that overspray will be present in the hole sidewalls of the perforated membrane.

EPO '845 is directed to the electrostatic transfer of an image onto a solid (i.e. non perforated) transfer substrate. EPO '845 does not teach or suggest one-way vision signs. Nor does EPO '845 recognize any problems of ghosted images or halo effects in sign manufacturing.

Lack of identification of the problem facing the inventor has long been a basis for finding that the references could not have suggested a solution to the problem, nor without more, be properly combinable one with the other.

The case of In re Wright, 848 F.2d 1216, 6 USPQ2d 1959 (Fed.Cir. 1988), is instructive on this point. In that case, the CAFC reversed a decision of the Board of Patent Appeals and Interferences, rejecting claims for a level vial with extended pitch range, used as part of a carpenter's

level. The claimed invention recited a core pin within the vial for preventing the indicator bubble from moving as far along the barrel with a given pitch range, in comparison with the barrel vials of the prior art. While admitting the recited combination of known elements was new, the Board held that it would have been obvious to construct a level having a core pin in the barrel shaped vial of the cited **Vaida** reference, irrespective of the purpose. The Court, in allowing the initially rejected claim stated, 848 F.2d at 1219, 6 USPQ2d at 1961:

We repeat the mandate of 35 U.S.C. § 103; it is the invention as a whole that must be considered in obviousness determination. The invention as a whole embraces the structure, its properties, and the problems it solves...

The determination of whether a novel structure is or is not "obvious" requires cognizance of the properties of that structure and the problem which it solves, viewed in light of the teachings of the prior art...

Thus, the question is whether what the inventor did would have been obvious to one of ordinary skill in the art attempting to solve the problem upon which the inventor was working.

In the instant case, applicant's invention recites a method for transferring an electrostatically printed image from a transfer medium onto the solid bar portions only of a one-way vision perforated membrane. An advantageous feature of applicant's invention is that no part of the transferred image can be seen when the display panel is viewed in the through-viewing direction. Neither Hill nor EPO '845 acknowledge the problem of excess ink present in the hole sidewalls of a perforated transfer substrate, a problem which is overcome by applicant's invention.

The 103 rejection also improperly relies on applicant's specification as a source of the teaching to combine the references. This is improper as applicant's specification is not prior art!

The law is clear that the suggestion for the combination must come from the references, not applicant's Specification. In **Ex parte Brack**, 134 USPQ 445 (P.O.B. of A 1961), the Board

reversed the Examiner's rejection, holding that to make the rejection, 134 USPQ at 446:

"... reliance would have to be placed upon appellant's own disclosure and improperly so to form a basis for the rejection.

The case of In re Stencel, 4 USPQ 2d 1071 (1987) is instructive on this point. In that case, a claim for a driver adapted to set a joint with a specially threaded lobed collar was rejected on the basis of, inter alia, prior art. The Court, in allowing the initially rejected claim stated, 4 USPQ 2d 1073:

[Applicant's] system is not prior art against the claims of his own patent application. Nor is obviousness established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion [in the references] that the combination be made. [Citations omitted.]

As stated in ASC Hospital Systems, Inc. v. Montefiore Hospital, 732 F2d 1572, 1577, 221 USPQ 929, 933 (Fed.Cir.1984):

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. The prior art of record fails to provide any such suggestion or incentive. Accordingly, we hold that the court below erred as a matter of law in concluding that the claimed invention would have been obvious to one of ordinary skill in the art under section 103.

Here, the Office Action has improperly used applicant's specification as a parts list from which to go to as many as three different references to pick isolated and unrelated bits and pieces from the references. Then it improperly uses applicant's specification as a blueprint to attempt to reassemble the references.

But it is clear from the discussion of the various references, that they are not directed to

solving the same problems nor do they recognize the actual problem to which applicant's invention is directed to overcome.

Indeed, if one of ordinary skill in the art, without having seen applicant's invention, were to spread out these three references in front of him or her, that person of ordinary skill in the art would have absolutely no idea in what way to combine the various references. Indeed, the references if taken together could teach several possible substitutions which teach completely away from applicant's invention. There is no clear, single direction shown in those references and it is improper of the Office Action to use applicant's specification as the guide through the thicket of references.

Accordingly, as none of the references, taken alone or in combination, teach or suggest applicant's claimed invention, the rejection is unsound and should be withdrawn.

CONCLUSION

It is believed that claims 1-16 are clearly patentable over the prior art of record in this case and therefor favorable action of all claims remaining in this case is earnestly solicited. The Examiner is requested to call undersigned counsel regarding this Response to clear up any other matters of prosecution which may be necessary for allowance of the case. Undersigned counsel's number is 415-342-4513.

Respectfully submitted,



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